

IN THE CLAIMS

Please add new claims 21-28 as follows:

A1 21. The method of Claim 7 wherein:  
said step of observing parameters at a plurality of test nodes comprises the step of observing n number of parameters; and  
said step of selectively stepping the level of the supply current in response to a number of errors detected comprises the step of stepping the level of the supply current by one of 2n number of steps for n number of parameters.

22. The method of Claim 7 wherein said second time interval is divided into a plurality of sub-intervals and said step of stepping the level of the supply current comprises the substeps of:  
during a first sub-interval selectively stepping the level of the supply current in response to at least one error detected; and  
during a second sub-interval selectively stepping the level of the supply current in response to at least one error detected.

23. The method of Claim 7 wherein said step of initiating a test mode comprises the substeps of:  
monitoring a power supply voltage; and  
initiating the test mode when the power supply voltage crosses a preselected threshold.

24. The method of Claim 7 wherein said step of initiating a test mode comprises the substep of initiating a state machine for generating a plurality of

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conc. timing signals defining the first and second time intervals.

25. The method of Claim 7 wherein said step of initiating a test mode comprises the substep of applying a voltage to a selected terminal of the integrated circuit.

26. The method of Claim 7 wherein said step of initiating a test mode comprises the substeps of:

- connecting an input pin of the integrated circuit to a selected voltage; and
- comparing the voltage at the input pin against a threshold.

27. A method of testing an integrated circuit including a plurality of test nodes comprising the steps of:

- initiating a test mode;
- observing parameters at the plurality of test nodes to detect errors;
- selectively modulating a power supply current to the integrated circuit in response to a number of errors detected; and
- decoding the modulated power supply current to identify the detected errors.

28. The method of Claim 27 wherein said step of modulating comprises the step of pulse-width modulating the power supply current.

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